REMARKS

The Examiner rejected Claims 1-2, 4-5, 8-9, 12, 26, 28 under 35 U.S.C. 103(a) as being unpatentable over Golan [US 5,826,180] in view of Miyauchi [US 2004/0041 554]. Applicant submits that, as currently amended, these claims are patentable over the cited prior art.

With respect to Claims 1 and 26, the Examiner states that Golan teaches the limitations of the Claim except for requiring that the IF responses of the receiver under test are measured for overlapping frequency bands. The Examiner looks to Miya for the missing teachings. The Examiner maintains that it would have been obvious to modify Golan by using the teachings of Miya regarding overlapping frequency bands, in order to further reduce "the influence of image data in the IF response". Applicant disagrees with the Examiner's reading of Golan as teaching all the limitations of Claims 1 and 26 apart from those relating to overlapping frequency bands.

First, Claims 1 and 26 have been rewritten to make it clear that the IF response of the receiver is a function of frequency and is derived from measurements made at a plurality of frequencies within each of the frequency bands of interest. This is fully supported by the text of the specification of the current invention, for example on page 3, lines 16-17 where the IF response is described as "an intermediate frequency (IF) transfer function or frequency throughput response". Applicant submits that none of the passages in Golan cited by the Examiner relates to an IF response derived from measurements made at a plurality of frequencies within a band or frequencies, and hence, none of them teach the measurement of a receiver IF response as required by these Claims.

The Examiner states in the Examiner's response to Applicant's arguments in the Examiner's final rejection that Miya "also teaches the calibration the IF response for the actual IF response for two frequency bands in abstract". As best Applicant can determine, the Examiner is suggesting that Miya discloses in the cited abstract the measurement of an IF frequency response. Applicant submits that the abstract of Miya teaches the sweeping of a signal "for each of a plurality of intermediate frequencies", not the sweeping of an input signal that generates correspondingly swept IF signals, from which an IF transfer function or

frequency throughput response could be measured. Hence, Applicant submits that Miya does not provide the teachings missing from Golan that are required by Claims 1 and 26, regarding the measurement of an IF frequency response.

Second, Claims 1 and 26 require a set of conversion coefficients computed from the IF responses, such that in combination with the measured IF responses, an improved estimate of the actual IF response can be obtained. As noted above, the combination of Golan and Miya does not teach the measurement of an IF response which is a function of frequency and determined by measurements made at a plurality of frequencies within each frequency band; hence, no such coefficients could be computed. Furthermore, Applicant submits that the combination of Golan and Miya does not teach the computation of a set of conversion coefficients as specified by the Claims. The coefficients required by the Claim are defined in the text of the specification (page 11 line 27 to page 12 line 9) as weights, of constant value for a given frequency band, that relate measured and actual frequency responses, for example according to equation 7 of the specification. The Examiner identifies the calculated amplitude and phase mismatch parameters ε and α, referred to in col. 4, lines 41-67 of Golan, as the conversion coefficients in question. Applicant submits that the parameters ε and α simply relate to the mismatches between inphase and quadrature time-dependent signals from a non-ideal mixer, whose effect may be calibrated out by the procedure that Golan teaches. Applicant submits that parameters ε and α taught by Golan are not applied as conversion coefficients in combination with any response that is a function of frequency, no less an IF response, as required by Claims 1 and 26. Miya does not provide the missing teachings.

Accordingly, Applicant submits that the Examiner has failed to make a *prima facie* case for obviousness with respect to Claims 1 and 26, and the Claims dependent therefrom.

The Examiner rejected Claims 3, 27 under 35 U.S.C. 103(a) as being unpatentable over Golan in view of Miyauchi, as applied to Claims 1, 16 above, and further in view of Dufour, et al (hereafter "Dufour") (US2003/0187 601). Applicant traverses the rejection.

The Examiner states that the combination of Golan and Miyauchi teaches the limitations of Claims 3 and 27 except for requiring that the measuring comprises averaging

measurements of the IF frequency response at the overlapping frequency bands of the plurality. The Examiner looks to Dufour for the missing teachings. The Examiner states that it would have been obvious to modify the combination of Golan & Miyauchi with Dufour's calibration "in order to reduce the amount of frequency tuning for the wideband calibration" and "for the test measurement".

First, as noted above with respect to Claims 1 and 26 from which Claims 3 and 27 respectively depend, the combination of Golan and Miya does not teach the limitation regarding the measurement of an IF response which is a function of frequency and is derived from measurements made at a plurality of frequencies within each of the frequency bands of interest. Dufour does not provide the missing teaching.

Second, as noted above, with respect to Claims 1 and 26 from which Claims 3 and 27 respectively depend, the combination of Golan and Miya does not teach the limitation regarding the set of conversion coefficients computed from the IF responses, such that in combination with the measured IF responses, an improved estimate of the actual IF response can be obtained. Dufour does not provide the missing teaching.

Third, regarding the motivation to modify the teachings of Golan by applying the teachings of Dufour , Applicant submits that if anything Golan teaches away from the need for a new means of reducing the amount of frequency tuning required by a receiver, as Golan teaches (column 5, lines 44-47) the use of a frequency divider 18 that achieves the same goal by enabling "the receiver of the present invention to receive multi-octave RF signals". Applicant submits that the Examiner has not pointed to any suggestion in Golan or elsewhere that the technique taught in Golan is inadequate in the context of the applications relevant to the system of Golan.

Hence, Applicant submits that the Examiner has failed to make a *prima facie* case for obviousness with respect to Claims 3 and 27.

The Examiner rejected Claim 10 under 35 U.S.C. 103(a) as being unpatentable over Golan in view of Miyauchi, as applied to Claim 1 above, and further in view of

Fullerton, et al (hereafter "Fullerton")(US2004/0136 438). Applicant traverses the rejection.

The Examiner states that the combination of Golan and Miyauchi teaches the limitations of Claim 10 except for requiring that the RF stimulus signal is a broadband signal comprising one or both of a summation of a plurality of sinewaves and a periodic chirped waveform. The Examiner looks to Fullerton for the missing teachings. The Examiner maintains that it would be obvious to modify the combination of Golan & Miyauchi with the teaching of Fullerton "in order to generating RF signal to achieve desired spectral characteristics".

First, as noted above with respect to Claim 1 from which Claim 10 depends, the combination of Golan and Miya does not teach the limitation regarding the measurement of an IF response which is a function of frequency and is derived from measurements made at a plurality of frequencies within each of the frequency bands of interest. Fullerton does not provide the missing teaching.

Second, as noted above with respect to Claim 1 from which Claim 10 depends, the combination of Golan and Miya does not teach the limitation regarding the set of conversion coefficients computed from the IF responses, such that in combination with the measured IF responses, an improved estimate of the actual IF response can be obtained. Fullerton does not provide the missing teaching.

Third, regarding the motivation to further modify the teachings of Golan by applying the teachings of Fullerton, Applicant submits that Golan teaches a direct digital synthesizer 34 that simply generates "a signal at a variable low frequency" (column 4, lines 7-8) as required. The Examiner has not pointed to any suggestion in the prior art that any other "desired spectral characteristics" would be beneficial to the RF signal generated in the system taught by Golan. Hence, Applicant submits that there would be no benefit in including the teachings of Fullerton relating to the provision of a broadband signal of the type specified in Claim 10.

Accordingly, Applicant submits that the Examiner has failed to make a *prima facie* case for obviousness with respect to Claim 10.

The Examiner indicated that Claims 6-7, 11, 13-25, 29 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The Claims have been rewritten accordingly, as shown above.

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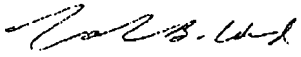
Respectfully Submitted,



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